

# PLEASANT VALLEY

PWSID # 0060009

Community Water System • Carroll County, Maryland

## 2009 Annual Water Quality Report

*This is an annual report on the quality of water delivered by the Carroll County Bureau of Utilities, Department of Public Works. This report meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of the water, its constituents, and the health risks associated with any contaminants. Safe water is vital to the community. Please read this report carefully and, if you have questions, call the Bureau of Utilities at 410-386-2164.*



Pleasant Valley 2009 Annual Water Quality Report

Bureau of Utilities  
Department of Public Works  
225 North Center Street, Room 218  
Westminster, Maryland 21157

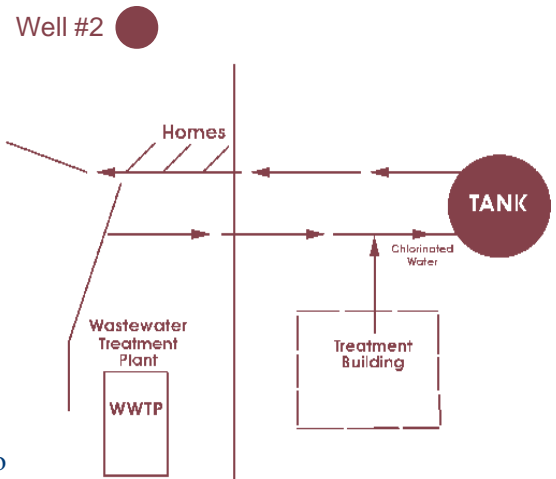
### Water Source

The source of Pleasant Valley's water supply, which services the Pleasant Valley Community, is an unconfined fractured-rock aquifer. The Pleasant Valley area, underlain by the Upper Pelitic Schist, is in the Wissahickon Formation.

The groundwater wells are not under the influence. Well No. 2, producing up to 16 gallons per minute (gpm), has been the primary source of water since March 2001, under Water Appropriation Permit No. CL95G053(02). It is located 750 feet northeast of Halter Road, directly behind 1340 Pleasant Valley Road.

A source water assessment was performed and the susceptibility analysis of Pleasant Valley's water supply is based on the water quality data, potential sources of contamination, aquifer characteristics, and well integrity. The assessment determined that Pleasant Valley's water supply is susceptible to contamination by nitrates and Radon-222. The water supply is not susceptible to volatile organic compounds or synthetic organic compounds. Copies of the source water assessment are available at the Bureau of Utilities, Carroll County Government, 225 North Center Street, Room 218, Westminster, MD 21157.

### Pleasant Valley Treatment Process



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## Important Health Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

**(A) Microbial Contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**(B) Inorganic Contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**(D) Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) **Radioactive Contaminants**, can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## *Cryptosporidium* and Radon Information

In 1999, Pleasant Valley Community Water System tested for and did not detect *Cryptosporidium* in the water. *Cryptosporidium* is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. Immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease and it may be spread through means other than drinking water.

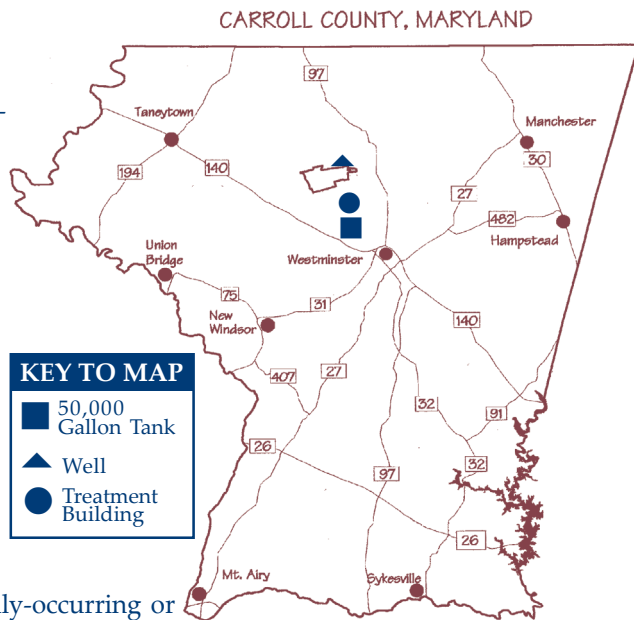
The Bureau of Utilities tested for Radon in 2008. The water showed an average Radon level of 25.7 picocuries per liter (pCi/L). Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the United States and can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to Radon entering the home through soil, Radon entering the home through tap water will, in most cases, be a small source of Radon in indoor air. Radon is a known human carcinogen. Breathing air containing Radon can lead to lung cancer. Drinking water containing Radon may also cause increased risk of stomach cancer. If you are concerned about Radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of Radon in your air is four picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a Radon problem that aren't too costly. For additional information, call your State Radon program or call EPA's Radon Hotline at (800-SOS-RADON).

## Copper and Lead Information

On December 31, 2007, the Bureau of Utilities, Department of Public Works tested for Copper and Lead. Test results showed both Copper and lead to be well below EPA's maximum contaminant level of 1.3 ppm for copper and 15 ppb for lead. (See Water Quality Table)

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Bureau of

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# Water Quality Table

Inorganic Contaminants	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Copper <sup>1</sup>	12/31/07	AL=1.3ppm	1.3ppm	0.12ppm	Corrosion of household plumbing systems; erosion of natural deposits	Short term exposure: Gastro-intestinal distress. Long term exposure: Liver or Kidney damage.
Lead <sup>2</sup>	12/31/07	AL=15ppb	0	2ppb	Corrosion of household plumbing systems; erosion of natural deposits	Infants & children: Delays physical or mental development, children could show slight deficits in attention span & learning abilities Adults: Kidney problems & high blood pressure.
Nitrate <sup>3</sup>	10/22/09	10ppm	10ppm	5.6ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of six months who drink water exceeding the MCL, could become seriously ill and if untreated could die. Symptoms include shortness of breath and blue baby syndrome.

Microbiological Contaminants	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Turbidity <sup>4</sup>	2007	TT	na	.22ntu	Soil runoff	It is used to indicate water quality and filtration effectiveness. Higher levels are often associated with disease causing microorganisms, such as viruses, parasites, and some bacteria. These can cause symptoms such as nausea, cramps, diarrhea and headaches.

Disinfectants & Disinfection By-Products	Date	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
TTHMs <sup>5</sup>	05/23/07	80ppb	na	10.4ppb	By-product of drinking water disinfection	Liver, kidney or central nervous system problems; increased risk of cancer.
HAA <sup>5</sup>	05/23/07	60ppb	na	1.47ppb	By-product of drinking water disinfection	Increased risk of cancer.

Secondary Inorganic Chemical Parameters	Date Tested	SMCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
pH <sup>6</sup>	2009	na	na	8.9pH	Erosion of natural deposits; algae blooms	No known health effects.

Synthetic Organic Contaminants ( including pesticides and herbicides)	Date Tested	MCL	MCLG	Detected Level	Major Sources	Potential health effects from ingestion of water
Di (2-ethylhexyl) phthalate	05/23/07	6ppb	0	0.5ppb	Discharge from rubber and chemical factories	Reproductive difficulties; liver problems; increased risk of cancer.

## Key to Table

AL = Action Level  
MCL = Maximum Contaminant Level  
SMCL = Secondary Maximum Contaminant Level  
\* Indicates SMCL  
MCLG = Maximum Contaminant Level Goal  
na = Not Applicable

pCi/L = picocuries per liter (a measure of radioactivity)  
ppm = parts per million, or milligrams per liter (mg/L)  
ppb = parts per billion, or micrograms per liter (µg/L)  
NTU = Nephelometric Turbidity Units  
TT = Treatment Technique  
ND = No detect

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Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

In 2009 two violations were received for bacteriologic reporting. Tests were performed as scheduled with no bacteria detected, however MDE did not receive the data by the required 10th day of the following month after testing. When data was received Pleasant Valley was returned to compliance.

## An Explanation of the Water Quality Data Table

The water is tested to assure that it is safe and healthy. The column marked "Detected Level" shows the highest test results during the year. "Major Sources" shows where this substance usually originates. Footnotes explain important details. The State allows the County to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the Pleasant Valley data, though representative, is more than one year old.

## Important Drinking Water Definitions

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology, and taking cost into consideration.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety, and are non-enforceable public health goals.

**Detected Level:** The highest level detected of a contaminant for comparison against the acceptance levels for each parameter. These levels could be the highest single measurement, or an average of values depending on the contaminant.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Range:** The lowest to the highest values for all samples tested for each contaminant. If only one sample is tested, or no range is required for this report, then no range is listed for that contaminant in the table.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

## Water Quality Table Footnotes

<sup>1</sup> The samples tested for Copper did not exceed the current action level of 1.3 ppm.

<sup>2</sup> The samples tested for Lead did not exceed the current action level of 15 ppb.

<sup>3</sup> Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

<sup>4</sup> Turbidity is a measure of the cloudiness of water.

<sup>5</sup> Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:

- Haloacetic acids: dichloroacetic acid (zero); trichloroacetic acid (0.3 mg/L)
- Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 mg/L)

<sup>6</sup> pH is shown as a monthly average

For additional information, contact Mr. Gregory Wantz, Water Treatment Plant Superintendent, Bureau of Utilities, Department of Public Works, at 410-386-2164; or consult our web site at [ccgovernment.carr.org/ccg/util/default.asp](http://ccgovernment.carr.org/ccg/util/default.asp). For further information, see U.S. Environmental Protection Agency (EPA) water information at [www.epa.gov/safewater/ccr1.html](http://www.epa.gov/safewater/ccr1.html); and, [www.waterdata.com](http://www.waterdata.com). for Water Quality Data on other community water systems throughout the United States; or by calling EPA's Safe Drinking Water Hotline at 1-800-426-4791.

For billing information, call 410-386-2000, and for Operation and Maintenance inquiries, call 410-386-2164, Monday through Friday from 8:00 a.m. until 5:00 p.m. An answering machine is available after hours.

The Board of Carroll County Commissioners meets regularly with Department staff. The Carroll County Commissioners' weekly agenda is available on the Internet at [ccgovernment.carr.org/meetings/index.html](http://ccgovernment.carr.org/meetings/index.html) or by calling the Commissioners Office at 410-386-2043. The Carroll County Commissioners welcome and encourage public participation.

Member: American Water Works Association (AWWA)  
Chesapeake Section of the American Water Works Association (CSAWWA)  
Maryland Rural Water Association  
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Chesapeake Water Environment Association (CWEA)  
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